

Certificate of Mailing:

The undersigned certifies that this correspondence is being sent via first-class mail with sufficient postage in an envelope addressed to the Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, this 14th day of September 2004.

(s) 

Linda S. Evans

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant:	Chen et al.	Atty. Docket:	PRD2045NP-US
Serial No.:	10/786,478	Art Unit:	Not yet assigned
Filed:	February 25, 2004	Examiner:	Not yet assigned
For:	Relaxin3-GPCR135 Complexes And Their Production And Use		

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

INFORMATION DISCLOSURE STATEMENT

Sir:

Pursuant to 37 C.F.R. § 1.56 and in accordance with 37 C.F.R. §§ 1.97-1.98, Applicant submits the accompanying Form PTO-1449 citing references relating to the application.

This Statement is being filed under the provisions of 37 C.F.R. § 1.97(b)(3), i.e., before the mailing of a first Office Action on the merits. In the event that a first Office Action on the merits has been mailed, then this Statement is being filed under 37 C.F.R. § 1.97(c)(2) and the Commissioner is requested to charge Deposit Account No. 10-0750 for the \$180.00 fee set forth in 37 C.F.R. § 1.17(p).

A copy of each reference listed on the Form PTO-1449 is enclosed. Each reference is in the English language with the exception of WIPO Publication Numbers WO 00/24891, WO 01/48189, and WO 01/81562, which are in the Japanese language, except for an English-language abstract. In lieu of providing translations of these

publications, the following English-language equivalents or counterparts are provided: European Patent Publication No. EP 1126029, which corresponds to WO 00/24891; US Patent Application Publication No. US2003/0157558, which corresponds to WO 01/48189; and US Patent Application Publication No. US2003/0158381, which corresponds to WO 01/81562.

This Statement should not be construed as an admission that any information provided herewith is material as that term is defined in 37 C.F.R. § 1.56(b) or that any cited reference qualifies as prior art. This Statement should not be construed as a representation that a search has been made, or that information more material does not exist.

The Examiner is respectfully requested to initial the citations on the Form PTO-1449 to confirm consideration of each reference.

If any fees are due in connection with the filing of this Statement, please charge any necessary fees to Deposit Account No. 10-0750.

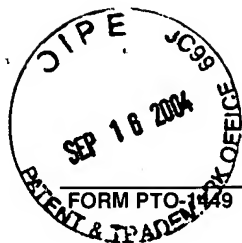
Respectfully submitted,

Date: September 14, 2004



Linda S. Evans
Reg. No. 33,873

Linda S. Evans
Michael D. Ruse
Johnson & Johnson
One Johnson & Johnson Plaza
New Brunswick, New Jersey 08933-7003
(858) 320-3406

Sheet 1 of 5

FORM PTO-149

U.S. DEPARTMENT OF COMMERCE
PATENT AND TRADEMARK OFFICEATTY. DOCKET NO.
PRD2045NP-USSERIAL NO.
10/786,478**INFORMATION DISCLOSURE
CITATION BY APPLICANT**

(Use several sheets if necessary)

APPLICANT
Chen et al.FILING DATE
February 25, 2004

GROUP ART UNIT

U.S. PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	INVENTORS	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
	US	4 8 7 3 3 1 6	October 10, 1989	Meade et al.			
	US	5 2 2 3 4 0 9	June 29, 1993	Ladner et al.			
	US	5 2 7 2 0 7 1	December 21, 1993	Chappel			
	US	5 5 7 1 6 9 8	November 5, 1996	Ladner et al.			
	US2003	0 1 5 7 5 5 8	August 21, 2003	Matsumoto et al.			
	US2003	0 1 5 8 3 8 1	August 21, 2003	Itoh et al.			

FOREIGN PATENT DOCUMENTS

		DOCUMENT NUMBER	DATE	COUNTRY/REGION	CLASS	SUBCLASS	TRANSLATION (if applicable)
	EP	0 2 6 4 1 6 6	August 21, 1996	EP			
	EP	1 1 2 6 0 2 9	August 22, 2001	EP			
	WO	9 1 0 6 6 6 7	May 16, 1991	WIPO			
	WO	0 0 2 3 1 1 1	April 27, 2000	WIPO			
	WO	0 0 2 4 8 9 1	May 4, 2000	WIPO			
	WO	0 1 4 8 1 8 9	July 5, 2001	WIPO			
	WO	0 1 6 2 7 9 7	August 30, 2001	WIPO			
	WO	0 1 6 8 8 6 2	September 20, 2001	WIPO			
	WO	0 1 7 4 9 0 4	October 11, 2001	WIPO			
	WO	0 1 7 5 1 6 4	October 11, 2001	WIPO			
	WO	0 1 8 1 5 6 2	November 1, 2001	WIPO			
	WO	0 1 8 5 7 9 1	November 15, 2001	WIPO			
	WO	0 2 0 0 7 1 9	January 3, 2002	WIPO			
	WO	0 2 2 2 8 0 2	March 21, 2002	WIPO			

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

		Altschul et al., "Basic Local Alignment Search Tool", <i>J. Mol. Biol.</i> , Vol. 215, pp. 403-410 (1990).
		Altschul et al., "Gapped BLAST And PSI-BLAST: A New Generation Of Protein Database Search Programs", <i>Nucleic Acids Res.</i> , Vol. 25(17), pp. 3389-3402 (1997).
		Amann et al., "Tightly Regulated tac Promoter Vectors Useful For The Expression Of Unfused And Fused Proteins In Escherichia Coli", <i>Gene</i> , Vol. 69, pp. 301-315 (1988).
		Baldari et al., "A Novel Leader Peptide Which Allows Efficient Secretion Of A Fragment Of Human Interleukin 1 β In Saccharomyces Cerevisiae", <i>EMBO J</i> , Vol. 6(1), pp. 229-234 (1987).

EXAMINER

DATE CONSIDERED

EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

FORM PTO-1449

U.S. DEPARTMENT OF COMMERCE
PATENT AND TRADEMARK OFFICEATTY. DOCKET NO.
PRD2045NP-USSERIAL NO.
10/786,478**INFORMATION DISCLOSURE
CITATION BY APPLICANT**
(Use several sheets if necessary)APPLICANT
Chen et al.FILING DATE
February 25, 2004

GROUP ART UNIT

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)Banerji et al., "A Lymphocyte-Specific Cellular Enhancer Is Located Downstream Of The Joining Region In Immunoglobulin Heavy Chain Genes", *Cell*, Vol. 33, pp. 729-740 (1983).Bathgate et al., "Human Relaxin Gene 3 (H3) And The Equivalent Mouse Relaxin (M3) Gene: Novel Members Of The Relaxin Peptide Family", *J. Biol. Chem.*, Vol. 277(2), pp. 1148-1157 (2002).Benjannet et al., "PC1 And PC2 Are Proprotein Convertases Capable Of Cleaving Proopiomelanocortin At Distinct Pairs Of Basic Residues", *Proc. Natl. Acad. Sci. USA*, Vol. 88, pp. 3564-3568 (1991).Brummelkamp et al., "A System For Stable Expression Of Short Interfering RNAs In Mammalian Cells", *Science*, Vol. 296, pp. 550-553 (2002).Burazin et al., "Restricted, But Abundant, Expression Of The Novel Rat Gene-3 (R3) Relaxin In The Dorsal Tegmental Region Of Brain", *J. Neurochem.*, Vol. 82, pp. 1553-1557 (2002).Byrne et al., "Multiplex Gene Regulation: A Two-Tiered Approach To Transgene Regulation In Transgenic Mice", *Proc. Natl. Acad. Sci. USA*, Vol. 86, pp. 5473-5477 (1989).Calame et al., "Transcriptional Controlling Elements In The Immunoglobulin And T Cell Receptor Loci", *Adv. Immunol.*, Vol. 43, pp. 235-275 (1988).Camper et al., "Postnatal Repression Of The α -Fetoprotein Gene Is Enhancer Independent", *Genes & Dev.*, Vol. 3, pp. 537-546 (1989).Carrillo et al., "The Multiple Sequence Alignment Problem In Biology", *Siam J. Applied Math*, Vol. 48(5), pp. 1073-1082 (1988).Civelli et al., "Novel Neurotransmitters As Natural Ligands Of Orphan G-Protein-Coupled Receptors", *Trends in Neurosciences*, Vol. 24(4), pp. 230-237 (2001).Conklin et al., "Substitution Of Three Amino Acids Switches Receptor Specificity Of $G_{q\alpha}$ To That Of $G_{i\alpha}$ ", *Nature*, Vol. 363, pp. 274-276 (1993).Cull et al., "Screening For Receptor Ligands Using Large Libraries Of Peptides Linked To The C Terminus Of The *lac* Repressor", *Proc. Natl. Acad. Sci. USA*, Vol. 89, pp. 1865-1869 (1992).Devereux et al., "A Comprehensive Set Of Sequence Analysis Programs For The VAX", *Nucleic Acids Research*, Vol. 12(1), pp. 387-395 (1984).

EXAMINER

DATE CONSIDERED

EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

FORM PTO-1449

U.S. DEPARTMENT OF COMMERCE
PATENT AND TRADEMARK OFFICEATTY. DOCKET NO.
PRD2045NP-USSERIAL NO.
10/786,478**INFORMATION DISCLOSURE
CITATION BY APPLICANT**

(Use several sheets if necessary)

APPLICANT
Chen et al.FILING DATE
February 25, 2004

GROUP ART UNIT

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

		Edlund et al., "Cell-Specific Expression Of The Rat Insulin Gene: Evidence For Role Of Two Distinct 5' Flanking Elements", <i>Science</i> , Vol. 230, pp. 912-916 (1985).
		Elbashir et al., "RNA Interference Is Mediated By 21-and 22-Nucleotide RNAs", <i>Genes & Dev.</i> , Vol. 15, pp. 188-200 (2001).
		Fire et al., "Potent And Specific Genetic Interference By Double-Stranded RNA In <i>Caenorhabditis Elegans</i> ", <i>Nature</i> , Vol. 391, pp. 806-811 (1998).
		Fodor et al., "Multiplexed Biochemical Assays With Biological Chips", <i>Nature</i> , Vol. 364, pp. 555-556 (1993).
		Goto et al., "Connections Of The Nucleus Incertus", <i>J. Comp. Neurol.</i> , Vol. 438, pp. 86-122 (2001).
		Hammond et al., "An RNA-Directed Nuclease Mediates Post-Transcriptional Gene Silencing In <i>Drosophila</i> Cells", <i>Nature</i> , Vol. 404, pp. 293-296 (2000).
		Hampson et al., "Probing The Ligand-Binding Domain Of The mGluR4 Subtype Of Metabotropic Glutamate Receptor", <i>J. Biol. Chem.</i> , Vol. 274(47), pp. 33488-33495 (1999).
		Hosaka et al., "Arg-X-Lys/Arg-Arg Motif As A Signal For Precursor Cleavage Catalyzed By Furin Within The Constitutive Secretory Pathway", <i>J. Biol. Chem.</i> , Vol. 266, pp. 12127-12130 (1991).
		Houghten et al., "The Use Of Synthetic Peptide Combinatorial Libraries For The Identification Of Bioactive Peptides", <i>Biotechniques</i> , Vol. 13(3), pp. 412-421 (1992).
		Howard et al., "Orphan G-Protein-Coupled Receptors And Natural Ligand Discovery", <i>Trends In Pharmacological Sciences</i> , Vol. 22(3), pp. 132-140 (2001).
		Hsu et al., "Activation Of Orphan Receptors By The Hormone Relaxin", <i>Science</i> , Vol. 295, pp. 671-674 (2002).
		Karlin et al., "Methods For Assessing The Statistical Significance Of Molecular Sequence Features By Using General Scoring Schemes", <i>Proc. Natl. Acad. Sci. USA</i> , Vol. 87, pp. 2264-2268 (1990).
		Karlin et al., "Applications And Statistics For Multiple High-Scoring Segments In Molecular Sequences", <i>Proc. Natl. Acad. Sci. USA</i> , Vol. 90, pp. 5873-5877 (1993).
		Kaufman et al., "Translational Efficiency Of Polycistronic mRNAs And Their Utilization To Express Heterologous Genes In Mammalian Cells", <i>EMBO J.</i> , Vol. 6, pp. 187-195 (1987).
		Kessel et al., "Murine Development Control Genes", <i>Science</i> , Vol. 249, pp. 374-379 (1990).
		Kurjan et al., "Structure Of A Yeast Pheromone Gene (MF α): A Putative α -Factor Precursor Contains Four Tandem Copies Of Mature α -Factor", <i>Cell</i> , Vol. 30, pp. 933-943 (1982).
		Lam et al., "A New Type Of Synthetic Peptide Library For Identifying Ligand-Binding Activity", <i>Nature</i> , Vol. 354, pp. 82-84 (1991).

EXAMINER

DATE CONSIDERED

EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

FORM PTO-1449

U.S. DEPARTMENT OF COMMERCE
PATENT AND TRADEMARK OFFICEATTY. DOCKET NO.
PRD2045NP-USSERIAL NO.
10/786,478**INFORMATION DISCLOSURE
CITATION BY APPLICANT**

(Use several sheets if necessary)

APPLICANT
Chen et al.FILING DATE
February 25, 2004

GROUP ART UNIT

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

		Lam, "Application Of Combinatorial Library Methods In Cancer Research And Drug Discovery", <i>Anti-cancer Drug Des.</i> , Vol. 12, pp. 145-167 (1997).
		Liu et al., "Comparison Of Human, Mouse, Rat, And Guinea Pig Histamine H ₄ Receptors Reveals Substantial Pharmacological Species Variation", <i>J. Pharmacol. Exp Ther.</i> , Vol. 299(1), pp. 121-130 (2001).
		Luckow et al., "High Level Expression Of Nonfused Foreign Genes With Autographa Californica Nuclear Polyhedrosis Virus Expression Vectors", <i>Virology</i> , Vol. 170, pp. 31-39 (1989).
		Matsumoto et al., "The Novel G-Protein Coupled Receptor SALPR Shares Sequence Similarity With Somatostatin And Angiotensin Receptors", <i>Gene</i> , Vol. 248, pp. 183-189 (2000).
		Montminy et al., "Regulation Of cAMP-Inducible Genes By CREB", <i>Trends Neurosci.</i> , Vol. 13(5), pp. 184-188 (1990).
		Moss, "RNA Interference: It's A Small RNA World", <i>Curr. Biol.</i> , Vol. 11(19), pp. R772-R775 (2001).
		Myers et al., "Optimal Alignments In Linear Space," <i>Comput. Appl. Biosci.</i> , Vol. 4(1), pp. 11-17 (1988).
		O'Hara et al., "The Ligand-Binding Domain In Metabotropic Glutamate Receptors Is Related To Bacterial Periplasmic Binding Proteins", <i>Neuron</i> , Vol. 11, pp. 41-52 (1993).
		Pinkert et al., "An Albumin Enhancer Located 10 kb Upstream Functions Along With Its Promoter To Direct Efficient, Liver-Specific Expression In Transgenic Mice", <i>Genes Dev.</i> , Vol. 1, pp. 268-277 (1987).
		Queen et al., "Immunoglobulin Gene Transcription Is Activated By Downstream Sequence Elements", <i>Cell</i> , Vol. 33, pp. 741-748 (1983).
		Rattan et al., "Protein Synthesis, Posttranslational Modifications, And Aging ^{on} ", <i>Ann. N.Y. Acad. Sci.</i> , Vol. 663, pp. 48-62 (1992).
		Schultz et al., "Expression And Secretion In Yeast Of A 400-kDa Envelope Glycoprotein Derived From Epstein-Barr Virus", <i>Gene</i> , Vol. 54, pp. 113-123 (1987).
		Scott et al., "Searching For Peptide Ligands With An Epitope Library," <i>Science</i> , Vol. 249, pp. 386-390 (1990).
		Seed et al., "An LFA-3 cDNA Encodes A Phospholipid-linked Membrane Protein Homologous To Its Receptor CD2", <i>Nature</i> , Vol. 329, pp. 840-842 (1987).
		Seidah et al., "Proprotein And Prohormone Convertases: A Family Of Subtilases Generating Diverse Bioactive Polypeptides", <i>Brain Res.</i> , Vol. 848, pp. 45-62 (1999).

EXAMINER

DATE CONSIDERED

EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

FORM PTO-1449

U.S. DEPARTMENT OF COMMERCE
PATENT AND TRADEMARK OFFICEATTY. DOCKET NO.
PRD2045NP-USSERIAL NO.
10/786,478**INFORMATION DISCLOSURE
CITATION BY APPLICANT**
(Use several sheets if necessary)APPLICANT
Chen et al.FILING DATE
February 25, 2004

GROUP ART UNIT

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

		Seifter et al., "Analysis For Protein Modifications And Nonprotein Cofactors", <i>Meth. Enzymol.</i> , Vol. 182, pp. 626-646 (1990).
		Shimomura et al., "Identification Of Neuropeptide W As The Endogenous Ligand For Orphan G-Protein-Coupled Receptors GPR7 And GPR8", <i>J. Biol. Chem.</i> , Vol. 277(39), pp. 35826-35832 (2002).
		Smith et al., "Production Of Human Beta Interferon In Insect Cells Infected With A Baculovirus Expression Vector", <i>Mol. Cell Biol.</i> , Vol. 3(12), pp. 2156-2165 (1983).
		Smith et al., "Single-Step Purification Of Polypeptides Expressed In Escherichia Coli As Fusions With Glutathione S-Transferase", <i>Gene</i> , Vol. 67, pp. 31-40 (1988).
		Studier et al., <i>Methods In Enzymology</i> , Vol. 185, "Use Of T7 RNA Polymerase To Direct Expression Of Cloned Genes", Academic Press Inc., San Diego, California, pp. 60-89 (1990).
		Sudo et al., "H3 Relaxin Is A Specific Ligand For LGR7 And Activates The Receptor By Interacting With Both The Ectodomain And The Exoloop2", <i>J. Biol. Chem.</i> , Vol. 278(10), pp. 7855-7862 (2003).
		Thomas et al., "Kex2-like Endoproteases PC2 And PC3 Accurately Cleave A Model Prohormone In Mammalian Cells: Evidence For A Common Core Of Neuroendocrine Processing Enzymes", <i>Proc. Natl. Acad. Sci. USA</i> , Vol. 88, pp. 5297-5301 (1991).
		Weintraub et al., "Anti-Sense RNA As A Molecular Tool For Genetic Analysis", <i>Trends In Genetics</i> , Vol. 1, pp. 22-25 (1985).
		Wilson et al., "Orphan G-Protein-Coupled Receptors: The Next Generation Of Drug Targets?", <i>British J. of Pharmacology</i> , Vol. 125, pp. 1387-1392 (1998).
		Winoto et al., "A Novel, Inducible And T Cell-Specific Enhancer Located At The 3' End Of The T Cell Receptor α Locus", <i>EMBO J.</i> , Vol. 8(3), pp. 729-733 (1989).
		Zamore et al., "RNAi: Double-Stranded RNA Directs The ATP-Dependent Cleavage Of mRNA At 21 To 23 Nucleotide Intervals", <i>Cell</i> , Vol. 101, pp. 25-33 (2000).
		Zuckermann et al., "Discovery Of Nanomolar Ligands For 7-Transmembrane G-Protein-Coupled Receptors From A Diverse N-(Substituted) Glycine Peptoid Library", <i>J. Med. Chem.</i> , Vol. 37, pp. 2678-2685 (1994).

EXAMINER

DATE CONSIDERED

EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.